



09/446,831

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

| | | | |
|-------------|--|-----------------|--------------|
| Applicant: | WOBBEN | Examiner: | T. LAM |
| Serial No.: | 09/446,831 | Group Art Unit: | 2834 |
| Filed: | FEBRUARY 17, 2000 | Docket No.: | 7468.178USWO |
| Title: | SYNCHRONOUS GENERATOR FOR SERVICE IN WIND POWER PLANTS AS WELL AS A WIND POWER PLANT | | |

CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited in the United States Postal Service, as first class mail, with sufficient postage, in an envelope addressed to: Mail Stop RCE, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on May 27, 2003.

By: 

Name: John C. Reich

AMENDMENT AND RESPONSE

Mail Stop: RCE
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

INTRODUCTORY COMMENTS

The applicant provides the following remarks in response to the final office action mailed on November 27, 2002. The applicants are also filing a petition for a three-month extension of time and a Request for Continued Examination. In light of these amendments and remarks, the applicant submits that all of the pending claims are in condition for allowance, and requests advancement of this application toward issuance.



09/446,831

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: WOBEN Examiner: T. LAM
Serial No.: 09/446,831 Group Art Unit: 2834
Filed: February 17, 2000 Docket No.: 07468.0178USWO
Title: SYNCHRONOUS GENERATOR FOR SERVICE IN WIND POWER
PLANTS AS WELL AS A WIND POWER PLANT

CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence and the paper(s), as described herein, are being deposited in the United States Postal Service, as first class mail, with sufficient postage, in an envelope addressed to: Mail Stop RCE, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on May 27, 2003.

By: 
Name: John C. Reich

REQUEST FOR CONTINUED EXAMINATION UNDER 37 C.F.R. §1.114

Mail Stop RCE
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450



Dear Sir:

Under 37 C.F.R. §1.114, it is respectfully requested that this application be accorded the benefits of Continued Examination.

Our check in the amount of \$750.00 is enclosed to cover the required fee for a large entity.

Respectfully submitted,

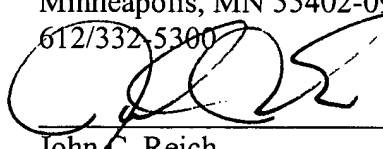
06/03/2003 AWONDAF1 00000084 09446831

01 FC:1801

750.00 OP

MERCHANT & GOULD P.C.
P.O. Box 2903
Minneapolis, MN 55402-0903
612/332-5300

Date: 


John C. Reich
Reg. No. 37,703
JCR:nma

AMENDMENT

Please amend the claims as follows:

1.-16. (Previously Cancelled).

17. (Currently Amended) A synchronous generator comprising:

a stator having a plurality of windings; and

a rotor having a plurality of poles, the rotor being movable relative to the stator, the poles
[being asymmetrically positioned on the rotor] defining a plurality of gaps, two or more of the gaps having different widths.

18. (Previously Added) The synchronous generator of claim 17 wherein each pole has a cross-sectional area, and the cross-sectional area of at least one pole is greater than the cross-sectional area of at least one other pole.

19. (Previously Added) The synchronous generator of claim 17 wherein the plurality of poles define a plurality of gaps, and at least one of the gaps is wider than at least one of the other gaps.

20. (Previously Added) The synchronous generator of claim 19 wherein at least one of the gap has a first width, at least one of the gaps has a second width, and at least one of the gaps has a third width.

21. (Previously Added) The synchronous generator of claim 20 wherein the gaps are air gaps.

22. (Previously Added) The synchronous generator of claim 17 wherein each of the poles is formed with a pole piece, each pole piece has at least one leading edge, the leading edge extending essentially obliquely with respect to the motion of the rotor.

23. (Previously Added) The synchronous generator of claim 22 wherein the leading edge has first and second sections, the first and second sections of the leading edge being oriented at an angle with respect to one another thereby forming a point.

24. (Previously Added) The synchronous generator of claim 23 wherein the first and second sections of the leading edge are positioned at an angle between about 100° and about 140° relative to the direction of motion of the rotor.

25. (Previously Added) The synchronous generator of claim 24 wherein the first and second sections of the leading edge are positioned at an angle of about 120° relative to the direction of motion of the rotor.

26. (Previously Added) The synchronous generator of claim 22 wherein each of the pole pieces has at least one trailing edge, the trailing edge extending essentially obliquely with respect to the motion of the rotor.

27. (Previously Added) The synchronous generator of claim 26 wherein the trailing edge has first and second sections, the first section of the trailing edge being substantially parallel to the first section of the leading edge, and the second section of the trailing edge being substantially parallel to the second section of the leading edge.

28. (Previously Added) The synchronous generator of claim 26 wherein the leading edge is rounded and the trailing edge is rounded.

29. (Previously Added) The synchronous generator of claim 22 wherein the pole piece has a cross-section, the cross-section having a trapezoid shape.

30. (Previously Added) The synchronous generator of claim 29 wherein the pole piece has a center portion, a first side portion extending from one side of the center portion, and a second side portion extending from an opposite side of the center portion, the cross-section of the first side portion diminishing as it extends from the center portion, and the cross-section of the second side portion diminishing as it extends from the center portion.

31. (Previously Added) A wind power plant comprising

a rotor;

a drive shaft connected to the rotor; and

a synchronous generator connected to the drive shaft, the synchronous generator

including a stator having a plurality of windings; and a rotor having a plurality of poles, the rotor being movable relative to the stator, the poles being asymmetrically positioned on the rotor.

32. (New) A synchronous generator comprising:

a stator having a plurality of windings; and

a rotor having a plurality of poles, the rotor being movable relative to the stator, the poles being asymmetrically positioned on the rotor, whereby the distance between adjacent poles is inconsistent.

33. (New) The synchronous generator of claim 32 wherein no two gaps have the same width.